Final Report:

Awareness and Acceptance of Pricing Project

Submitted by:
Washington State Department of Transportation
Puget Sound Regional Council

May 2011

Washington State Department of Transportation

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Links (underlined text) throughout the document provide shortcuts within the document and a gateway to the many resources that were generated along the way.

11-03-0562

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Executive Summary

This report documents the process and findings of the Awareness and Acceptance of Pricing (A&AP) project, jointly managed by the Washington State Department of Transportation (WSDOT) and the Puget Sound Regional Council (PSRC), funded by the Federal Highway Administration (FHWA)'s Value Pricing pilot program. In this report you'll find a description of the work done as part of the A&AP project and a high-level summary of findings. Links (underlined text) throughout the document provide shortcuts within the document and a gateway to the many resources that were generated along the way.

The Awareness and Acceptance of Pricing Project

In 2006, WSDOT and PSRC requested federal funding for a project then called "Advancing Public Awareness & Acceptance of Pricing and Toll Projects from the User's Perspective." As described in the application:

"The project will test public awareness and acceptance of policy and project specific tolling concepts for use in refining those policies and projects. In addition, the project will test the effectiveness of communications strategies and tools to advance public awareness and acceptance."

FHWA awarded $935,000 for the A&AP project, which began in summer 2007. The project comprised four key activities, all focused on understanding public acceptance issues that would enable or constrain broadening application of tolling beyond the old paradigm of financing bridge construction to include corridor tolling and application of congestion pricing. These activities included:

- Regional coordination on operational, research and legislative issues. This work included literature review, public opinion research and analysis to support legislative decisions during the 2008 state legislative session to establish a framework for tolling in Washington state and to authorize variable tolling on SR 520.
- SR 520 Tolling Implementation Committee. The 2008 Legislature established the 520 Tolling Implementation Committee to document and report on public and stakeholder opinion about proposed SR 520 tolling. A&AP funding supported this activity, including preparation and analysis of toll rate scenarios, assessment of diversion effects, description of toll technology issues, public opinion research, coordination for a major public outreach effort, and preparation of a final report to the state legislature.
- Pricing Task Force support. The A&AP project provided meeting support for a task force comprising regional business and government leaders to develop tolling alternatives for the update of the metropolitan transportation plan, Transportation 2040.
- Evaluation of existing and proposed toll projects. SR 16 Tacoma Narrows Bridge and SR 167 HOT lane customers were surveyed to understand their perceptions of existing toll facilities. Focus groups provided insight into public attitudes about express toll lanes.

Project Context and Primary Outcomes

In 2007, Washington state was beginning an active public dialogue about the role of tolling, both as a transportation funding source and a means of managing transportation system performance. Washington has a long history of tolling, primarily to fund bridges and other capital-intensive highway projects, but use of tolling fell off during the Interstate highway era. In the 2000's decade, Washington faced a significant increase in transportation needs as highway construction costs exploded, and major facilities came due for replacement or expansion. Significant gas tax increases were enacted, and bonds were purchased, but significant funding gaps remained.

At about the same time WSDOT and PSRC began work on the A&AP project, Washington became part of the federal Urban Partnership Agreement and Congestion Reduction Demonstration Program (UPA), which promoted a different approach to tolling than had previously prevailed in Washington. Washington's UPA application proposed to toll SR 520 in prior to the construction of the replacement bridge, and to intentionally use variable pricing to reduce congestion in the corridor. At the same time, PSRC was beginning work on its metropolitan transportation plan ,Transportation 2040, paying particular attention to the role tolling could play in funding transportation and managing transportation performance over the next 30 years.

In this context, it was apparent that the most critical use of A&AP funds to "test public awareness and acceptance of policy and project specific tolling concepts for use in refining those policies and projects" should focus on the immediate questions facing the state and region – understanding public acceptance issues about introducing variable tolling on SR 520 in advance of project construction, and integrating tolling into the region's long range metropolitan transportation plan. Neither of these outcomes could have been accomplished without the robust engagement of policymakers, stakeholders and the public, which was possible only with the support of the A&AP project.

This report provides a high-level summary of the A&AP project activities and findings, as well as links and references to a wide variety of work products, many of which are available on the project's website, www.wsdot.wa.gov/Tolling/planning/aap. A timeline of project activities is shown in Figure 1, and a list of available resources and web links is shown in Table 1.

Table 1

Summary of Resources Produced with Assistance from the A&AP Project

Regional coordination on operational, research and legislative issues

- Pricing Acceptance Public Opinion Analysis, July 2007. Includes analysis of public acceptance research in other cities.
- Pricing Focus Group Research, December 2007.
- Tolling in the Puget Sound Region: Discussion of Commonly Raised Questions and Issues, February 2008.
- House Transportation Committee presentation, January 2008. For briefing legislators on the Lake Washington Urban Partnership Agreement, and on toll choices for the Puget Sound region.

SR 520 Tolling Implementation Committee

- Project website (build520.org). Provides a complete archive of the SR 520 tolling outreach effort conducted by the three-member 520 Tolling Implementation Committee including project documents, press coverage, meeting minutes and other useful links.
- The 520 Tolling Implementation Committee's final report to the legislature (PDF), January 2009. The report highlights input the committee received about the ten different approaches to tolling 520 and I-90, as well as impacts on traffic, and a recommended approach to mitigation of traffic impacts from tolling.
- Outreach Events and Materials, including a full set of presentation materials used for all Committee Meetings and Briefings, Fall 2008 520 Tolling Open Houses, and Summer 2008 520 Tolling Open Houses
- Toll scenario descriptions, including 520-Only Scenarios (PDF), Two-Bridge (520 & 90) Scenarios (PDF), and Tolling Scenarios Evaluation Results - Presentation (PDF).
- Travel Demand Modeling and Analysis, including a Travel Demand Modeling and Financial Analysis (PDF), Toll Scenarios Map (PDF), 520-Only Bridge Scenarios (PDF), Two-Bridge Scenarios (PDF), Summer 2008 Toll Scenarios Handout (PDF), and Travel Demand Model Independent Peer Review Paper (PDF)
- Technology papers, including one an Active Traffic Management Report (PDF), and a Toll Collection Technology Memo (PDF)
- Discussions on I-90, including the I-90 Memorandum of Agreement (PDF), I-90 Tolling Letter to FHWA (PDF), and I-90 FHWA Letter to WSDOT (PDF), and a Mitigation Recommendations Memo (PDF)
- Public opinion research, including a Statistically Valid Phone Survey – Report, Public Comment Summary – Fall 08 Report, Public Comment Summary – Summer 2008 Report, and Web Survey – Results and compilations of comments received from jurisdictions, organizations and the public.

(continued)

Table 1, continued
Summary of Resources Produced with Assistance from the A&AP Project

Support for PSRC's Pricing Task Force

The Pricing Task Force guided development of tolling options that were incorporated into each of the Transportation 2040 metropolitan transportation plan alternatives. A&AP funding was used to coordinate and facilitate Pricing Task Force meetings, not for development of Transportation 2040 documents shown below. The following PSRC documents illustrate how tolling was incorporated in the metropolitan transportation planning process.

- Pricing Task Force Committee website (archived)
- Committee presentations and meeting summaries
- Transportation 2040 background documents, including Executive Board Workshop on Transportation 2040 Presentation, Preferred Alternative Description , Scoping Process, Snapshot of the Alternatives – January 2009, Transportation 2040 Background Report: Growth and Transportation in the Central Puget Sound Region- March 2009, Transportation 2040 FAQs, Transportation 2040 Survey, Transportation 2040 working papers, and background information presented to the Transportation Policy Board.
- Draft Environmental Impact Statement documents, including an EJ Summary, Transportation 2040 DEIS Summary Handout (11x17) – June 2009, Transportation 2040: Draft Environmental Impact Statement – May 2009, Keeping the Region Moving – June 2009, and Final Scoping Report – March 2008
- The Adopted Transportation 2040 Plan, including the Transportation 2040 Executive Summary, Transportation 2040 (full plan 12 MB), Transportation 2040 Map, as well as individual chapters and 13 appendices.

Evaluation of existing and proposed toll projects

- State Route 167 and Tacoma Narrows Bridge Surveys, September 2010. WSDOT conducted telephone and internet surveys of customers using existing toll facilities including the SR 16 Tacoma Narrows Bridge and the SR 167 HOT Lane Pilot Project.
- I-5 Express Toll Lanes Study Focus Group Report, September 2010. WSDOT conducted focus groups to assess public perceptions and concerns about possible implementation of express toll (HOT) lanes replacing existing HOV lanes on I-5.
- I-5 Express Toll Lanes Study Phone Survey Report, September, 2010. WSDOT conducted a telephone survey to assess public perceptions and concerns about possible implementation of express toll (HOT) lanes replacing existing HOV lanes on I-5.

For other useful links and related documents, please see the Awareness and Acceptance web site located at www.wsdot.wa.gov/Tolling/planning/aap.

Project Background and Context

In 2007, when the Awareness and Acceptance of Pricing (A&AP) Value Pricing Grant was awarded to the Washington State Department of Transportation (WSDOT) and Puget Sound Regional Council (PSRC), transportation officials in the Puget Sound Region were beginning a public dialog on the role of transportation pricing, and were struggling with how to talk with the public about pricing. Even terminology was challenging – terms like variable pricing, congestion pricing, road pricing and tolling were being used without clarity or common understanding.

At the time of the award, no priced transportation facilities were in operation in the state, though two were close to opening: the new Tacoma Narrows Bridge, which opened with electronic toll collection in 2007, and the SR 167 HOT Lanes Pilot Project, which opened in 2008. Several other projects were under development that could benefit from new revenue sources and/or congestion management techniques. The SR 520 Bridge Replacement and HOV program would replace the aging Evergreen Point Floating Bridge, which remains vulnerable to wind storms. A replacement was needed for the SR 99 Alaskan Way Viaduct that had been damaged in an earthquake, and expansion or managed lanes were under development for the I-405 freeway serving the east and south sides of Lake Washington. PSRC, preparing for its update to the regional transportation plan, was looking at the role pricing could have in the metropolitan transportation plan that was going to be updated in 2009.

WSDOT and PSRC were interested in gaining a better understanding of public awareness and acceptance of pricing: what messages, communications strategies and potential projects they might support; and how perceptions among key constituents compared.

Washington's Recent Tolling History

Figure 1 provides a view of the historical context for tolling in Washington that set the stage for the A&AP project. Figure 1 also shows the timing of major project activities within that context. When the project was initiated, the topic of tolls and congestion pricing was not new. The issue of pricing had been under discussion for several years in the Puget Sound region, but had been confined mostly to policy corners or agency planning studies.

Early 1990s – Public-Private Partnerships

In the early 1990s, Washington ventured into public-private partnerships. The state legislature adopted, in a unanimous vote, a measure empowering WSDOT to solicit six proposals for public-private projects to build new transportation facilities financed through tolls or fees. When five out of the six projects were terminated due to public opposition, some felt tolling was set back. The Tacoma Narrows Bridge Project continued and has since been completed, using state financing after paying the private partner for its interest. This experience underscored the need to understand the conditions that affect public acceptance of tolls.

Transportation Commission and PSRC Tolling Studies

As early as 1995, Washington State Transportation Commissioner Aubrey Davis began to advocate for congestion pricing. He recognized that over time, gas tax revenues would fail to keep pace with growing demands on the system, and regardless of a person's transportation ideology, the Puget Sound Region's geography limited the ability to expand the congested highway system. He and others also recognized the value of pricing to manage facilities that are congested today and, without intervention, will become more congested in the future. These two factors – need for revenue and better traffic management – have been the driving forces behind Washington state's interest in tolling and pricing projects.

In 2006, the Washington State Transportation Commission (WSTC) completed its first comprehensive tolling study, which resulted in policy recommendations in eight broad areas:

- Use tolls to build high cost projects, or provide benefits to the system
- Consideration of pricing to extend system capacity/improve performance
- Dedication of revenues to transportation purposes
- Balance toll rates to optimize efficiency and generate revenues
- Collection of tolls for revenue, operations, maintenance and operational improvements
- WSTC should be involved in determining toll projects and policies as well as tolling rates
- WSDOT is the implementation agency
- Toll collection systems should be user friendly and interoperable

In concert with this analysis, WSTC conducted public opinion research to better understand the public's awareness and acceptance of tolling issues. The results highlighted some of the issues the department would have to overcome or address in moving any program forward:

- people still equated tolling with tollbooths
- people preferred to toll only for revenue purposes not traffic management, and to take the toll off once the facility was paid for
- respondents wanted free alternatives to be available
- cynicism about government spending within existing revenues raised concerns about new or creative approaches to transportation funding

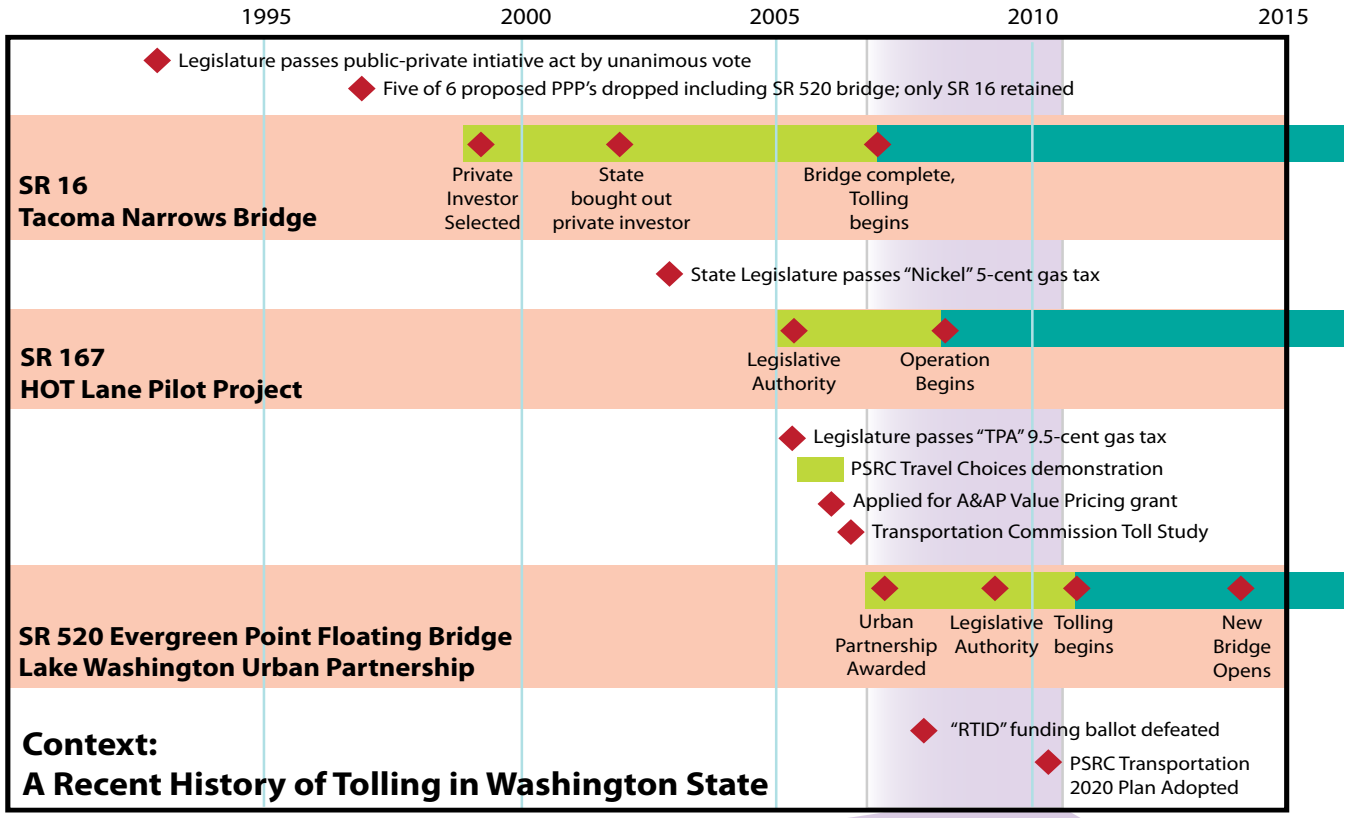
PSRC led the Traffic Choices Study – an FHWA Value Pricing funded demonstration project designed to advance understanding of how pricing affects driver behavior. The 18 month study investigated how drivers change their travel behavior in response to tolling that varies by time of day and location. The Traffic Choices Study demonstrated that pricing could have a measurable effect on behavior and congestion reduction as well as raising revenues.

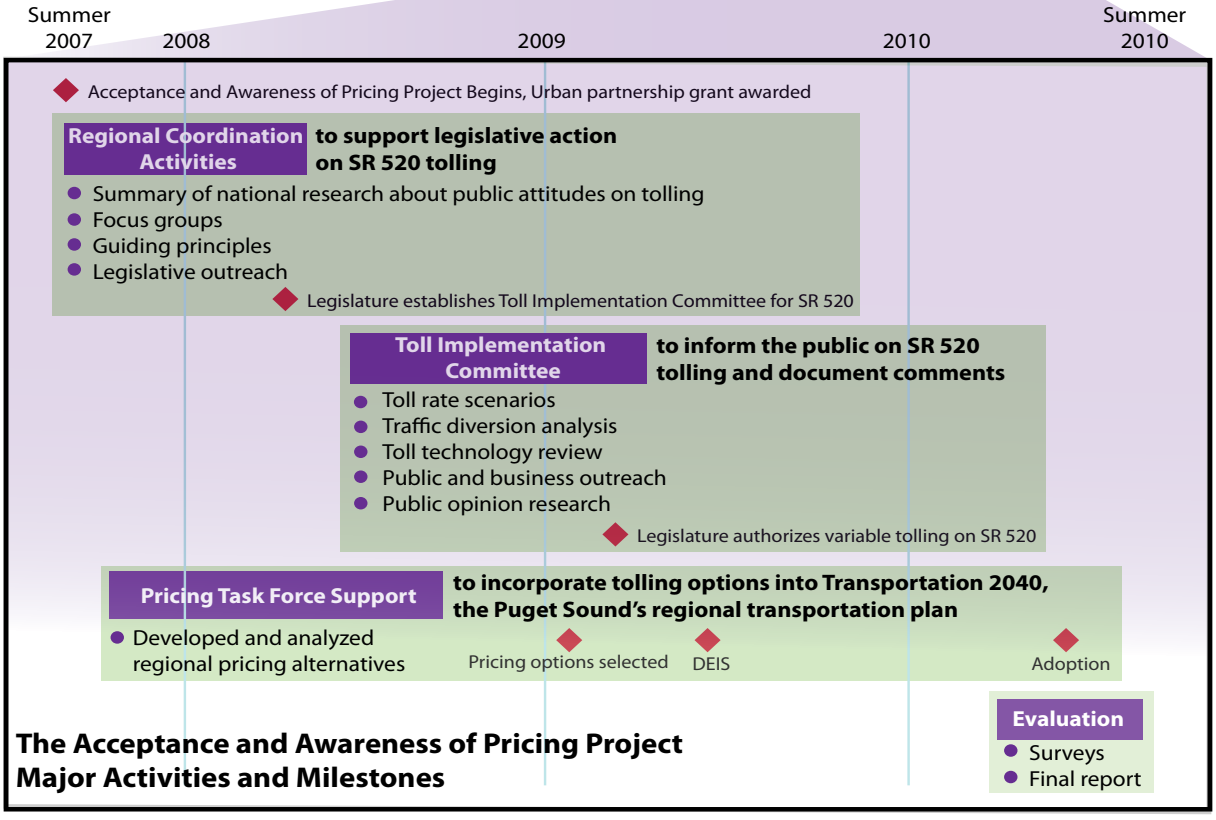
Mid 2000s – Development of Current Toll Projects

Much of the work up to this point had been policy development. However, an ongoing pricing demonstration program and two toll projects under construction would be foundational in developing strategies to guide future transportation facility pricing policies.

Figure 1

A&AP Activities in Context of Washington State Tolling History





The new SR 16 Tacoma Narrows Bridge began as a public-private initiative, but became a traditional toll project that relied on toll revenues to pay for the new structure after the State purchased the project back from its private developer. When it opened in July 2007, it featured the state's first use of electronic toll collection, alongside traditional tollbooths.

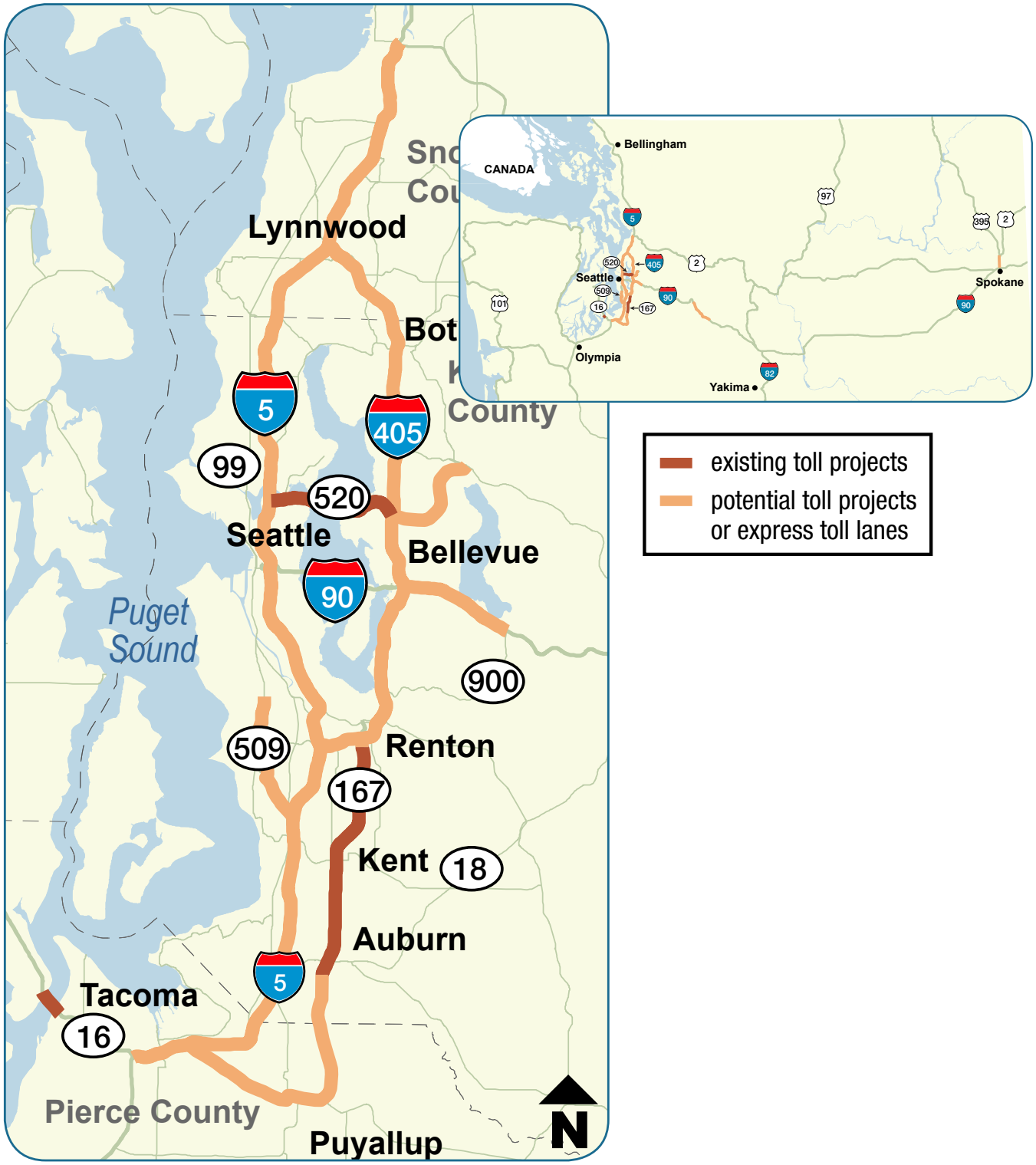
The Tacoma Narrows Bridge offers both toll booths and electronic tolling.

During 2007, WSDOT had also begun design, engineering and construction for conversion of the high-occupancy vehicle (HOV) lanes on SR 167 to high-occupancy toll (HOT) lanes. This project, funded in part by FHWA's Value Pricing Pilot Project, was the region's only funded congestion pricing project when it opened in May 2008. Unlike most Puget Sound area HOV lanes, the existing SR 167 HOV lane was underutilized and could accept more traffic.

Those involved in state transportation policies, including WSDOT, WSTC and the legislature, were very interested in how the HOT lanes would perform and how the public would respond to variable pricing. These projects would provide valuable lessons that could be applied elsewhere. This was of particular importance given that key segments of the region's 250 mile HOV system were falling below adopted performance standards. Pricing appeared to offer an attractive means of addressing the growing performance problems with HOV lanes.

Figure 2

Existing and potential toll projects in Washington State



Context at the Time the A&AP Project Was Proposed

During the 2000s, several large projects were being planned that anticipated tolls as a source of revenue and/or as a means to manage congestion. WSDOT was in the environmental and preliminary design phase for three big-ticket projects, each costing several billion dollars. The Legislature had provided preliminary funding to advance each of them – the SR 520 Bridge Replacement and HOV Program, the SR 99 Alaskan Way Viaduct and Seawall Replacement Program, and the Columbia River Crossing Project. The I-405 Corridor Program was considering express toll lanes and, during the course of the project, WSDOT began to consider express toll lanes as a revenue and congestion management option for improving I-5 through Seattle.

Tolling had been considered for several of these projects as one of several revenue sources, but the primary funding strategy for each project was expected to include a combination of state and regional taxes. The Washington State Legislature adopted two significant gas tax increases in the 2000s and also provided for creation of regional funding bodies that could supply much of the remaining funding needs.

For any of these projects to succeed, more work was needed to understand how receptive the public would be to tolling and pricing. Questions centered on what might build public support and what could hinder it.

These activities prompted development of the A&AP proposal. The proposal was developed to develop an understanding of public perceptions on tolling, provide clarity of communications and direction, enhance regional coordination, and advance tolling awareness and acceptance among policy makers and the public.

Urban Partnership and the Failure of a Regional Funding Ballot

At the time the A&AP Project was initiated, WSDOT entered into the Federal Urban Partnership Agreement and Congestion Reduction Demonstration Program (UPA) focused on SR 520 and I-90, the two routes crossing Lake Washington. The Lake Washington Urban Partnership would promote several innovations in tolling:

- It would initiate **early tolling** in advance of constructing a new SR 520 bridge, breaking precedent from traditional toll projects that initiate tolls only when a new facility is opened.
- It would implement **congestion pricing** using variable tolls by time of day to promote even traffic volumes throughout the day.
- SR 520 would have no tollbooths, so **all-electronic tolling** would be used and no cash payment option provided.
- The Urban Partnership also mixed **technology, transit improvements and telecommuting** measures into the project, constructing European-style "active traffic management" signs over each lane to improve safety, and adding buses and park-and-ride improvements to accommodate increased transit use due to tolling.

UPA presented Washington with a challenge to implement tolling and other project elements within a very short deadline. A key challenge was to gain legislative authority for early tolling and congestion pricing on SR 520. But before the legislature would act, a substantial outreach and education effort would be needed to educate and engage the public about the novel tolling approached under consideration. This effort quickly became a primary focus for the A&AP project.

Aside from tolling, policymakers had assumed that regional taxes would fill the remaining funding gap for major highway and transit projects. Puget Sound policymakers had established a regional transportation improvement district (RTID) planning committee and sent a measure to voters that would combine funding for major highway projects as well as expansion of a regional high capacity transit system. When voters defeated this proposal decisively, interest increased in the role tolling might play to complete some of the major projects that had been under development for several years.

Visualization of electronic tolling equipment on the SR 520 Bridge.

Transportation 2040

The 2040 update to the region's metropolitan transportation plan was underway as the state and region struggled to find funding for the many "mega-projects" that had been planned or under development over the decade past. In addition, the PSRC had recently concluded the Traffic Choices Study that had national acclaim and strong interest from local leaders. A Pricing Task Force had been developed to develop a dialogue with regional opinion leaders and oversee consideration of pricing in the Transportation 2040 update process. The A&AP project played a role to facilitate that dialogue and in the process of developing tolling alternatives that would be incorporated into each alternative analyzed during the planning process and in the adopted plan.

A&AP Project Activities

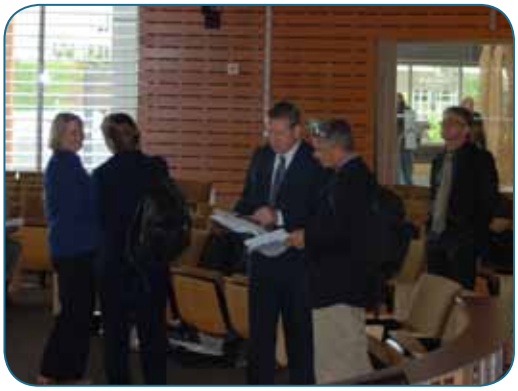
The A&AP proposal was submitted with the specific purpose of gaining better understanding of what the public thought; what messages, communications strategies and potential projects they might support; and how perceptions among key constituencies compared. The timing of the award was fortuitous, because key tolling decisions at the state and regional scale were imminent, and some of the tolling approaches proposed were not familiar to policymakers, business leaders or the public.

As shown in Figure 1, the project supported four primary focus areas, discussed in each of the four subsequent chapters:

- Regional coordination on operational, outreach and legislative support issues
- 520 Tolling Implementation Committee
- Integrating pricing strategies into the Regional Transportation Plan
- Evaluating existing and potential new pricing projects

Today, Washington has moved beyond that earlier terminology debate and is preparing to open the country's first variably-priced toll facility on an existing highway bridge, the SR 520 bridge. The importance of pricing is also reflected in the Transportation 2040 plan adopted by the PSRC, which includes pricing on all major highways in the region. The advancement of pricing in Washington has much to do with the 2007 A&AP Project funding provided by the Federal Highway Administration (FHWA) Value Pricing Pilot Program.

Regional Coordination on Operational, Research and Legislative Issues



Regional coordination on operational, research and legislative issues contributed significantly to the foundation of information that is being used for toll-related decision-making in Washington. This work included research on public attitudes and information from other states, applying the lessons learned to improve tolling communications in the Puget Sound Region.

In recognition of the inter-jurisdictional nature of transportation planning, WSDOT and PSRC involved key individuals from King County and the city of Seattle in an ongoing coordination effort to oversee and shape this portion of the A&AP work program. Their participation was designed to foster common understanding and communication of tolling between agencies, and help to:

1. Better understand public attitudes
2. Address common questions and concerns, and define a set of guiding principles that all pricing or tolling projects in the region should address to ensure a reasonable approach to implementation.
3. Support the 2008 Legislature's work to approve tolling and congestion pricing for the SR 520 Bridge.

Understanding Public Attitudes

This work program had two primary efforts:

- Pricing Public Opinion Analysis: Complete an analysis of public opinion work conducted to-date in Washington and other states with pricing programs in place, including Minnesota, Colorado and California.
- Focus Groups: Build upon that analysis, by conducting focus groups in the Puget Sound Region to gather public opinion on variety of issues related to tolling approaches and possible projects.

Pricing Public Opinion Analysis

An analysis of public opinion research conducted in other areas of the country where pricing was being used found the following elements contribute to public acceptance:

- communicating project benefits
- providing data and facts to support the benefit statements
- incremental implementation so people can experience the benefits
- emphasizing travel options and choices
- transparent communications regarding the use of revenues

In 2007, WSDOT was preparing to open the new Tacoma Narrows Bridge and was advancing plans for HOT lanes on SR 167. There were other important projects that could be built if toll revenue was part of the financing package, especially, the new SR 520 Bridge.

The information analysis provided insights from around the country but was primarily about HOT/express toll lanes because more directly analogous examples were not available. A brief summary is shown in Table 2, and a full report is available online.

Table 2

Summary of National Research Findings

- Educating the public about value pricing has proven effective for gaining public acceptance. In a March 2006 phone survey about I-90 in the Seattle metro area, only 29% of people were aware of variable tolling to manage traffic flow. Of those who were aware, 66% thought it was a good idea.
- Focusing on the benefits, such as more choices for drivers and maintaining free flowing traffic increases public acceptance.
- Providing facts and data about the benefits provides concrete evidence that value pricing offers drivers a viable option.
- Incremental implementation increases public support. Education and experience matter when people realize they can make choices to use or avoid managed lanes.
- Emphasizing the options available helps people recognize they have choices.
  - Alternative “free” routes.
  - Other travel modes.
  - Different travel times increase public acceptance of tolling programs.
- Communicating how toll revenues are used helps address accountability concerns.
- Coordinating messaging among partners to assure clear communication with the public about the need for value pricing and the benefits it provides to all travelers.

This research informed development of focus groups, allowing WSDOT and PSRC to build upon and test information learned elsewhere. The focus group results were used in developing materials for the legislature, and by the 520 Tolling Implementation Committee.

Focus Groups

The A&AP funded focus groups, conducted in November and December 2007, to engage King County drivers and transit riders in discussions regarding congestion pricing. The focus groups were designed to accomplish four purposes:

- Gauge participants' awareness of tolling for the purpose of improving traffic
- Learn how to successfully talk with the public about traffic and tolling strategies
- Identify what moves people to support or oppose tolling
- Determine opportunities to improve support for tolling through public engagement

Table 3

Summary of Focus Group Findings

Participant awareness of tolling is high. Participants were:

- familiar with traditional tolling to fund projects
- aware of the concept of using price as a tool to manage congestion
- generally aware of electronic tolling

Understanding varies with the type of tolling application

- Participants are more prone to understand HOT lanes than full-corridor tolling as a strategy to keep traffic moving.

Lack of understanding leads to skepticism regarding tolling all lanes

- Many participants were skeptical that a toll on all lanes could improve traffic flow.
- Skepticism was also linked to:
  - A disbelief that either they or others would give up their cars.
  - Perceived negative effects on low-income people and workers with the least flexible work hours.

Some barriers to broad public acceptance of tolling were identified

- Some participants opposed tolling for philosophical reasons. They either believe tolling is regressive and hurts low-income people, or they think that it is the government's job to fully fund transportation infrastructure.
- A few participants assumed any effort to toll is the government's approach to get more money out of their pocketbooks. Others said they would want to know what existing taxes are used for before authorizing any new revenues.

How to talk about tolling

- There were no clear standouts for overall terminology to describe what the transportation industry would call "congestion pricing." The term "tolling" was well-received, but other modifying words were often added to explain nuances and new concepts.

How tolling affects low-income people

- Learning that HOT lanes were supported by 50-70% of drivers across all income groups in cities where they are currently operating was the most effective statement presented to build support for HOT lanes among those who were not originally favorable.

Having travel options

- Most drivers said they would either drive another route to avoid a toll or pay to use a tolled facility if the demand on their time was great enough.
- Some participants thought that improving transit so that it ran more frequently, or connected more locations, would be an acceptable alternative for them or could provide an incentive for others to support tolling.
- Participants generally recognized that they contribute to congestion, yet did not transfer this recognition to what they could do personally to alleviate it.

Eight focus groups were held in four locations, two of the focus groups were composed of low-income participants. All other groups were recruited to reflect the demographics of their geographic area. The key findings from these focus groups are shown in Table 3, and a full report is available online.

Focus group results reinforced many of the findings of opinion research in other parts of the country. For example, participants could see the benefit of high occupancy toll (HOT) lanes, and thought they were fair because drivers could make a choice about whether to pay to use the HOT lane or drive in a free lane. Learning that low-income users tend to support HOT lanes helped some skeptics to support the HOT lane concept.

When looking at other forms of pricing, however, the focus groups had a hard time understanding how charging to drive on a road made it less congested, and in turn, were skeptical about corridor approaches to tolling.

Some barriers about pricing raised by people were philosophical. Some citizens simply oppose the idea while others don't want to pay for something they already perceive as free, or don't trust the government to use the money wisely.

Outcomes

As a result of the focus groups, the multijurisdictional staff team decided to refer to pricing projects as "toll" projects when engaging the public. As implementation activities moved closer, various project groups incorporated more descriptive terms. For example, the SR 520 Bridge Replacement and HOV Program refers to the variable pricing structure as "time-of-day" tolling to explain that rates will vary. The I-405 Corridor Program is using "express toll lanes" to describe the corridor-wide approach it is developing. These findings informed the development of the Guiding Principles, the effort to support the 2008 legislature and the work of the SR 520 Tolling Implementation Committee, discussed further in subsequent chapters.

Questions and Answers and Guiding Principles

A significant interagency staff effort was invested to develop clear statements about how tolling is envisioned within Washington, which resulted in a document called "Tolling in the Puget Sound Region: Discussion of Commonly Raised Questions and Issues" and a set of "guiding principles" or concepts each project should strive to achieve.

Table 4 shows the questions addressed in the document. In many cases, a primary question was broken into several subsidiary questions in order to provide a more comprehensive answer. The full report is available online.

Table 5 shows the "guiding principles" that were derived from the process of developing the questions and answers. These were developed by an interagency work group that also included consultant staff from four firms (Jacobs Engineering, the IBI Group, Cambridge Systematics and EnviroIssues) working on the project.

Table 4

Questions and Issue Addressed in "Tolling in the Puget Sound Region: Discussion of Commonly Raised Questions and Issues"

1. What are the user benefits of pricing and how are those benefits measured?
2. What are the system effects of pricing or not pricing?
3. What is the best way to structure pricing to achieve desired benefits?
4. What are the social equity issues of pricing?
5. What is the region's role in pricing?
6. What could be the best approach to implement pricing in the region?
7. How is privacy maintained?
8. How is the tolled facility financed to provide greatest benefit?
9. What is the public's understanding of pricing?
10. How do we set a toll rate?
11. How are tolls collected and enforced?
12. How and/or where will toll revenues be spent?

Table 5

"Guiding Principles"

1) Tolling should provide measurable user benefits.
2) Understand effects of tolling on the transportation system and how to encourage good system performance.
3) Understand how toll rate structures can affect societal, environmental and land use decisions over time.
4) Geographic, income and social equity and fairness must be considered.
5) There should be a forum for regional input into tolling.
6) Ensure effective long-term system-wide operations.
7) Privacy protections must be adequate.
8) Different finance approaches have different implications for projects
9) Public understanding, awareness and acceptance is needed.
10) Understand toll rate implications for revenues, operations and different needs.
11) Integration of current and future toll collection and enforcement strategies is important for interoperability over time.
12) Define and clarify how and when toll revenues can be used.

Outcomes

The process of developing the question and answer document and the guiding principles forces local agencies to confront unanswered questions and to reach agreement between interagency staff in the Puget Sound region about how tolling should be implemented. Having clear answers to key questions help staff to prepare communications materials and answer concerns raised in the upcoming legislative session.

Support during the 2008 Legislative Session

The public opinion analysis, focus groups and guiding principles formed the basis for the region's input to the Washington State Legislature's 2008 session. During this session, legislative direction and approval was needed regarding the Lake Washington Urban Partnership Agreement to implement variable pricing on the SR 520 Bridge. The SR 520 replacement project was also seeking legislative approval to toll the project as a means of raising revenues. Approval was needed in this session to further define the project scope and stay on schedule.

The regional coordination group developed a presentation, essentially a "Tolling 101" tutorial. The full presentation is available online. The presentation topics are shown in Table 6.

Outcomes

The 2008 Legislature passed two significant pieces of toll-related legislation, including:

- SB 1773, establishing a framework for tolling in Washington. This legislation established that tolling in Washington has two objectives: "to provide a source of transportation funding and to encourage effective use of the transportation system." It clarified that the state Legislature has sole authority to authorize toll projects on highways, establishes the Transportation Commission as the state's toll authority for setting toll rates and fees, and identifies eligible uses for toll revenues.
- The legislature also directed the leaders of the WSTC, WSDOT and PSRC to form a three-member "520 Tolling Implementation Committee" to evaluate tolls as a means of financing a portion of the SR 520 Bridge Replacement and HOV Program; engage citizens, businesses and regional leadership in the evaluation, enhance understanding of tolling alternatives, and report to the Governor and Legislature in January 2009. This was the first step towards gaining toll authority for SR 520 and confirmation of Washington's participation in the federal Urban Partnership program, discussed further in the next section of this document.

Table 6

Topics Addressed in "Tolling 101" Legislative Presentation

- SR 520 and Urban Partnership Update.
- Context: tolling is one approach in a mix of traffic management strategies.
- Tolling approaches
  - Bridges, HOT/Express Toll Lanes/corridor tolling/system tolling
- Tolling objectives
  - Funding, traffic management and environmental benefits
- Successes elsewhere
  - US HOT lanes
  - International cordon/area pricing
- Puget Sound Region
  - Studies.
  - Possible projects – near and long term
- Regional Coordination efforts
  - Guiding Principles
  - What we are learning
  - What we still need to know

520 Tolling Implementation Committee

The 520 Tolling Implementation Committee was created to evaluate tolls as a means of financing a portion of the SR 520 Bridge Replacement and HOV Program, engage citizens and regional leadership in the evaluation enhance understanding of tolling alternatives, and report the findings to the Governor and Legislature in January 2009 to inform their decision on whether to authorize tolls in the SR 520 corridor.

While Washington has a history of using tolls to fund bridge projects, there were several elements of the proposed SR 520 tolling program that were less familiar. By this time the state had entered into the federal Urban Partnership Program, and agreed to initiate tolling prior to bridge construction, and set variable toll rates by time of day to reduce traffic congestion. Also, tollbooths would not be possible, so the corridor would be tolled using electronic tolling exclusively.

The legislature directed the 520 Tolling Implementation Committee (composed of the Secretary of Transportation, the Executive Director of the Puget Sound Regional Council and the Chair of the Washington State Transportation Commission) to engage citizens, jurisdictions and business interests.

The Committee was charged with:

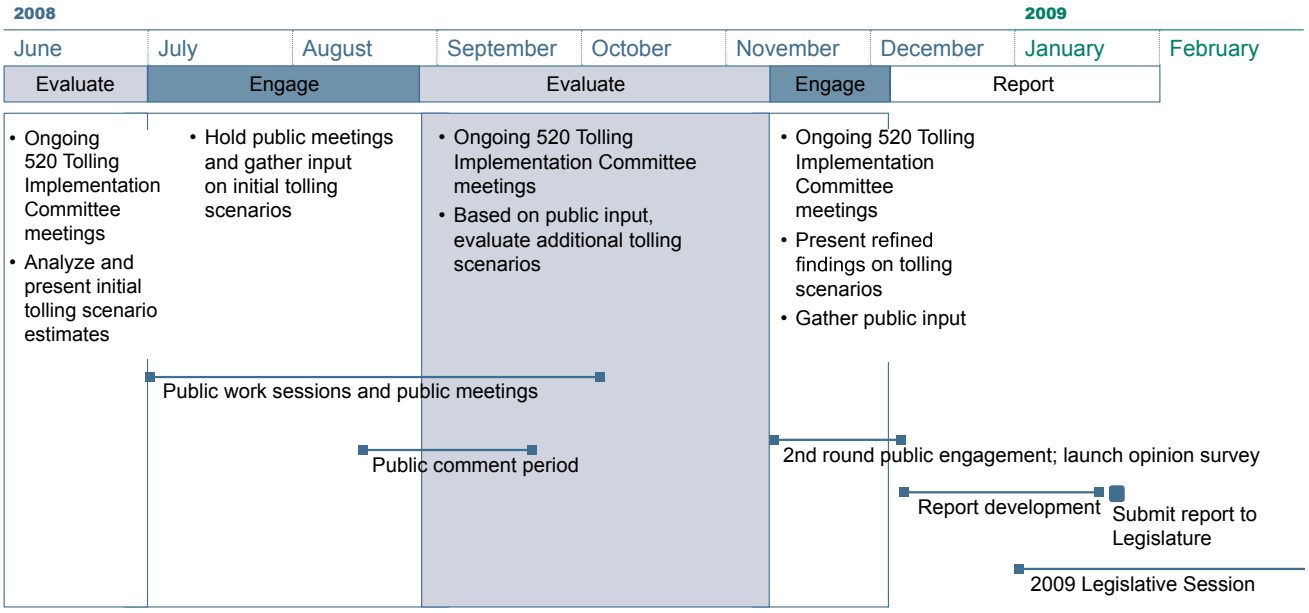
- Evaluating potential diversion of traffic from SR 520 to other parts of the transportation system, including I-90 (the parallel interstate highway crossing Lake Washington), SR 522 running along the north side of Lake Washington, and local roadways.
- Recommending mitigation measures to reduce diversion impacts.
- Evaluating advanced tolling technology.
- Evaluating new applications of emerging technology to better manage traffic.
- Exploring opportunities to partner with the business community to reduce congestion and financially contribute to the project.
- Conferring with mayors and city councils of jurisdictions adjacent to SR 520, SR 522 and I-90.
- Conducting public work sessions and open houses.
- Providing a report to the Governor and Legislature by January 2009.

The Committee was specifically charged with engaging citizens on the following topics:

- Funding a portion of the SR 520 Program with tolls on the existing bridge
- Funding the SR 520 Program and improvements on the I-90 Bridge with a toll paid by drivers on both bridges
- Providing incentives and choices for transit and carpooling
- Implementing variable tolling as a way to reduce congestion.

Figure 3 shows the timeline to develop the Tolling Implementation Committee's report to the legislature.

Figure 3
520 Tolling Implementation Committee Timeline



Tolling Scenarios

A significant technical program analyzed toll scenarios, and developed information to inform the public about toll technology, and potential diversion impacts. The A&AP Project funded a major portion of this work, comprising the largest share of the A&AP effort.

The legislature directed the committee to study three basic scenarios:

- Toll 520 when the new bridge opens
- Toll the existing 520 bridge
- Toll both the 520 and I-90 bridges and fund improvements on both

The committee and its staff developed and evaluated 10 tolling scenarios. The committee initially evaluated four scenarios (two SR 520-only and two that tolled both SR 520 and I-90) and collected extensive public and local jurisdictional input on those results. That input led to the development of six additional scenarios. The committee then re-engaged the public and local jurisdictions with results for all ten scenarios.

Table 7 shows the toll scenarios that were analyzed. The scenarios below are divided between those that toll only the SR 520 Bridge and those that toll both SR 520 and I-90. The numbering indicates the order in which the scenarios were analyzed. At the time this work was conducted, the assumption was that tolling could begin as early as 2010 with construction completed in 2016. Tolling is now scheduled to begin in Spring 2011 with the new bridge open to traffic in 2014.

Table 7
SR 520 and I-90 Toll Scenarios

SR 520-only toll scenarios	Two-bridge (SR 520 and I-90) scenarios
1 Toll in 2016, when project is complete	**3** Toll both bridges in 2016
2 Toll in 2010, when construction begins	**4** Toll 520 bridge in 2010 and I-90 in 2016
5 Toll at a flat rate in 2016	**8** Toll 520 at a higher rate than I-90 in 2016
6 Toll in 2010 at a rate that attempts to maximize funding by tolling only SR 520	**9** Toll both bridges in 2010
7 Toll in 2010; increase rate in 201	**10** Full bridge toll on 520; HOT lanes on I-90

Variables Examined in Toll Scenarios

Toll scenarios differed in their use of key variables that might or might not be part of a final tolling plan for 520 and/or I-90. Some important variables are shown in Table 8.

Modeling Peer Review

At its first public meeting in June 2008, the committee requested an independent peer review of the Puget Sound Regional Council's regional travel demand model used to analyze the toll scenarios. The peer review team was led by Dr. Yoram Shiftan, a University of Michigan visiting professor with extensive experience in travel demand modeling.

The peer review team concluded that the travel demand model used is comparable to the best in the nation, and noted that new elements incorporated in recent years have significantly improved the model's ability to analyze variable tolling.

The peer review team recommended slightly modifying the model to address high destination diversion (trips not crossing Lake Washington), improve model consistency, and look at results in more detail and with additional model runs using different assumptions. Several suggestions were incorporated in the model and were applied to all toll scenarios in September 2008.

Table 8

Variables Examined in Toll Scenarios

Single-point toll vs. segment tolling

A tolling location could be at a single point, such as the eastern end of the 520 bridge. There could also be several tolling locations, so that drivers would pay a partial toll for using just a portion of the 520 corridor, such as for trips between I-5 and the Montlake interchange in Seattle. Some toll scenarios were modeled with single-point tolls and some with segment tolls.

Single-point toll on both existing and new SR 520 bridges

- Beginning in 2010 for Scenarios 2, 4, 6, 7, 9
- Beginning or continuing in 2016 for Scenarios 5, 7, 8, 9

Segment tolls on new SR 520 bridge

- Beginning in 2016 for Scenarios 1, 2, 3, 4, 6
- Segment tolls on I-90
- Beginning in 2016 for Scenarios 3, 4

Single-point toll on I-90

- Beginning in 2010 for Scenario 9
- Beginning in 2016 for Scenario 8

Toll exemptions

For the purposes of the scenario analysis, some scenarios assumed all vehicles would pay the toll. Others assumed that only transit vehicles would be exempt and still others exempted carpools with three or more people from toll payment. By looking at a variety of exemption types, the committee could assess the revenue implications of exemptions.

Variable tolls or flat tolls

All but two of the scenarios included variable tolls (higher in the peak travel periods and lower at all other times). Variable toll rates would not change automatically according to traffic conditions. One scenario examined a flat rate toll that stays the same twenty-four hours a day, and another (the HOT lane scenario) examined a toll on I-90 that increases or decreases according to actual traffic conditions.

Toll rate ranges

The committee presented tolls in the following time frames:

▪ Morning commute (5 am – 9 am)	$2.15 to $4.25
▪ Midday (9 am – 3 pm)	$1.05 to $2.75
▪ Afternoon commute (3 pm – 7 pm)	$2.80 to $5.35
▪ Evening (7 pm – 10 pm)	$1.00 to $2.55
▪ Overnight (10 pm – 5 am)	$0.00 to $0.95
▪ Weekend	$0.80 to $1.60

The committee used a three-step approach to evaluating toll scenarios:

- **Travel demand modeling**—forecasting the number of vehicles and people, the routes they take and the modes (single occupant, carpool, transit) they use.
- **Revenue analysis**—projecting gross revenue, deductions for toll collection and maintenance, and net revenue available for bridge funding.
- **Financial capacity analysis**—assessing how much project funding can be supported by tolls, including bonds and pay-as-you-go construction spending.

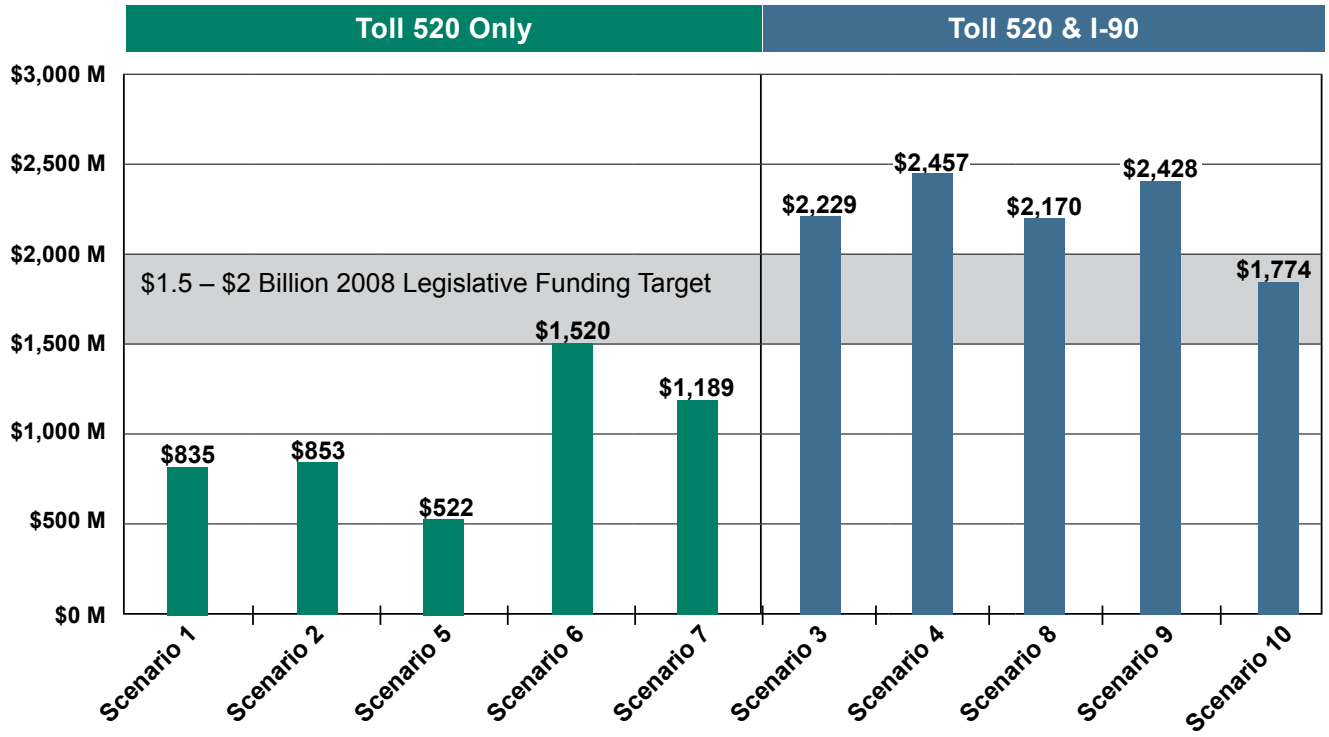
Summary of Technical Findings

Financial Capacity

The different alternatives have different financial capacity, as shown in Figure 4.

Beginning tolling in 2010 raises more funds and may reduce the cost of borrowing compared to starting tolling in 2016. Tolling starting in 2010 enables use of $154 million in federal funds from the Urban Partnership Agreement. Of that amount, $86 million would be available for tolling and active traffic management infrastructure, $41 million would be used to buy buses for use in the corridor, and $27 million would be available in funds for ferries.

Figure 4
Financial Capacity of Toll Scenarios

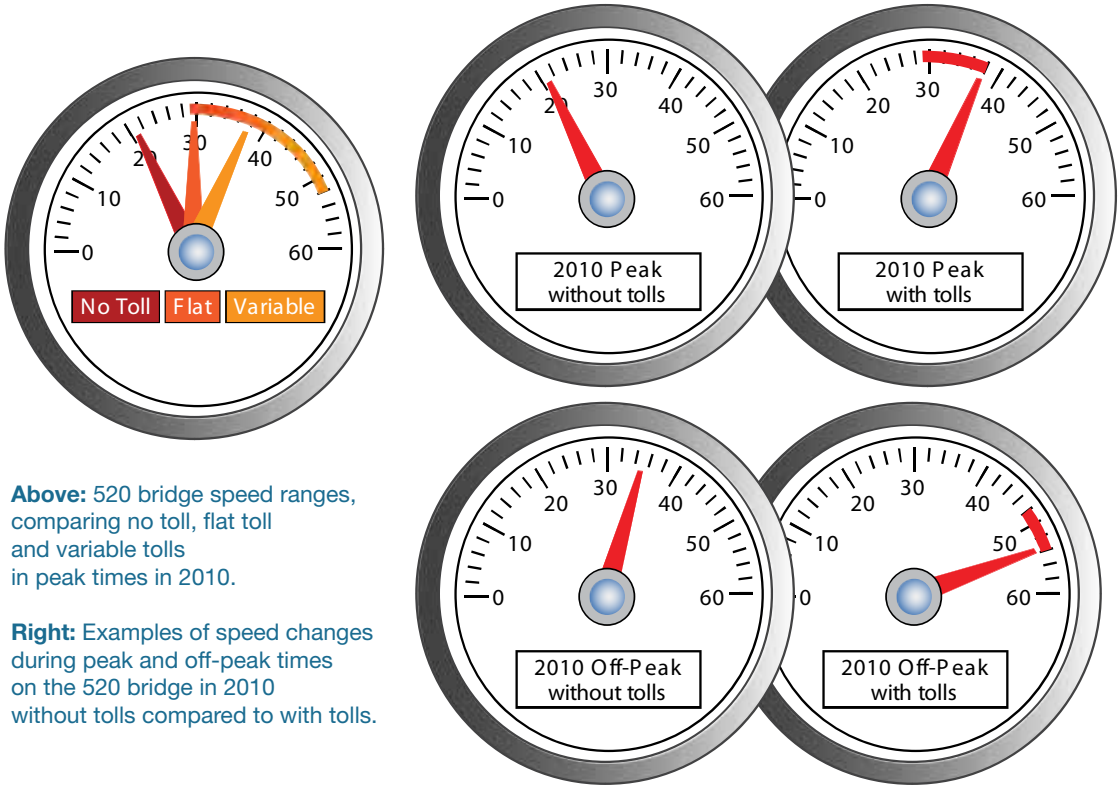


Bridge Performance

Figure 5 illustrates the effect of different tolling options on traffic. When tolls are in place traffic volumes go down and speeds improve. On 520, speeds increase as much as 40 percent (under the highest toll rate scenario). Speeds increase on average from 10 to 30 miles per hour in the corridor between I-5 and I-405. When both 520 and I-90 are tolled, speeds improve on both bridges in peak and off-peak times.

Figure 5

Impact of Tolling Options on Bridge Speeds (based upon the regional travel demand model)



Above: 520 bridge speed ranges, comparing no toll, flat toll and variable tolls in peak times in 2010.

Right: Examples of speed changes during peak and off-peak times on the 520 bridge in 2010 without tolls compared to with tolls.

Some observations:

- When tolls are in place, volumes go down and speeds improve on the tolled facility.
- If tolls are placed on both bridges, traffic volumes go down and speeds improve on both bridges.
- Speeds decrease on alternate routes. This decrease, however, is less than the speed improvements on the tolled routes.

Diversion Analysis

A key question for committee members was the effect tolling would have on other transportation system users as some drivers choose alternatives to paying a toll. Diversion can be defined in four ways: take another route, shift to transit, change destination or travel at a different time of day. Diversion rates are sensitive to several factors. The major factor is toll rate, followed by change in capacity and availability of alternate routes. If no good alternate route is available, many people will continue to take trips on the corridor rather than divert as seems to be the case with the Tacoma Narrows Bridge, where the traffic levels have been higher than projected. If there is a nearby alternate route, diversion may be more significant.

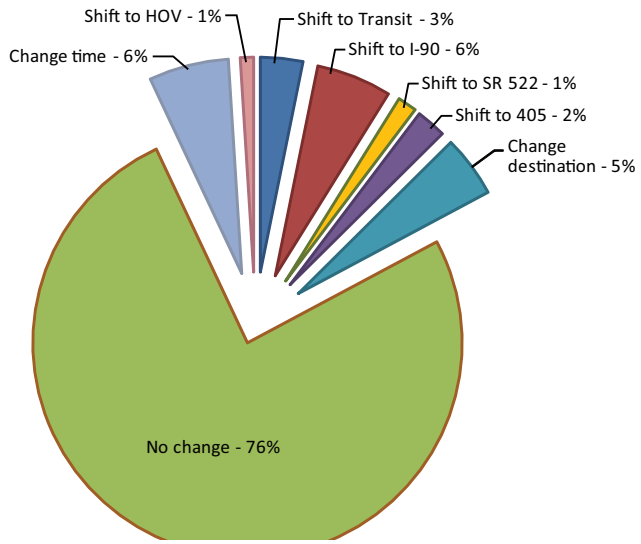
The situation changes if two bridges are tolled. Bridge users would face the choice of diverting to the north or south ends of Lake Washington should they want a non-tolled route. Traffic levels, and thus diversion rates, may also change as a result of economic conditions.

As part of the technical analysis, the diversion effects of each scenario were tested using the regional travel demand model. In all scenarios, most traffic will stay on SR 520. Those who change routes can choose between SR 522, I-90 or I-405. In general, analysis found that most people continue to use the tolled bridge, either by paying the toll, carpooling, taking transit or changing the time of their trip. Some people do change their route, but the overall effect of those route changes tends to be distributed across the transportation system.

An example of results from the diversion analysis is shown in Figure 6. This figure shows the peak period diversion effects from scenario, which is the single-bridge toll scenario with the highest toll rates – so expected to show the greatest diversion. Diversion shown is for the peak travel periods.

Figure 6

Scenario 6 Peak Period Diversion Results



As expected, those diverted from SR 520 show a variety of different changes in travel behavior, from taking the trip at a different time, using a different route or mode, or choosing a different destination altogether. Table 9 shows a summary of diversion findings for single bridge and two-bridge tolling scenarios.

Table 9

Summary of Diversion Analysis Findings

For the SR 520-only scenarios:

- Transit ridership increases 15 to 30 percent, provided service is in place in 2010. This represents about three percent of all 520 users.
- Peak period traffic on SR 520 decreases, because some people choose other routes. The higher the toll rate, the higher the diversion rate.
- Peak period traffic on I-90 increases less than 5 percent, except in the highest toll SR 520-only scenario where it increases 8 percent.
- Peak period traffic on SR 522 (at 61st Avenue in Kenmore) increases by no more than 5 percent.
- Peak period traffic on I-405 (at 167 in Renton) increases by no more than 3 percent.
- Between 3 and 11 percent choose to travel at a different time of day in 2010.

For the two-bridge (SR 520 and I-90) scenarios:

- There is a decrease in volumes on both SR 520 and I-90 as some people choose other routes, modes, or destinations.
- Peak period traffic on SR 522 (at 61st Avenue in Kenmore) increases by no more than 5 percent.
- Peak period diversion to I-405 (at 167 in Renton) is greater in two-bridge scenarios, with volume increases reaching 8 percent.

Diversion Recommendations

The committee made recommendations to minimize and mitigate diversion impacts. Their proposed approach would attempt to keep traffic on the tolled SR 520, and take actions to mitigate the effects of diversion off of 520. The committee's recommendations are shown in Table 10.

Potential Impact on Low Income Bridge Users

As part of its outreach, the committee publicized its open houses and website information in minority newspapers, social service newsletters, transit, and at community events. The committee coordinated with the 520 program on surveys and focus groups, and met with social service agencies to better understand how tolling may affect low income commuters.

Table 10

Recommended Diversion Minimization and Mitigation Strategies

Approaches to keep traffic on the tolled 520

- Use variable tolls to improve performance during peak periods and encourage traffic to stay on the bridge in the off-peak when tolls are lower.
- In addition to meeting debt requirements, manage toll levels to keep traffic on the bridge; higher tolls will divert more traffic off 520.
- Segment tolls are opposed by jurisdictions throughout the region. Segment tolls may cause traffic to divert to local arterials to avoid a toll; however, segment tolls also lower traffic on bridge approaches and improve traffic flow.
- Identify funding to operate Urban Partnership Agreement transit service, and continue working with employers to reduce solo commutes in these corridors.
- Replace the 520 Bridge. An expanded bridge will improve traffic flow and bring traffic that currently diverts because of congestion back to the 520 corridor.

Mitigation recommendations

Based on discussions with jurisdictions, the Committee identified five areas of concern related to traffic diversion: SR 522, Bellevue/Points communities arterials, I-90, I-405 South, Seattle/University of Washington. Committee mitigation recommendations related to tolling include:

- System-wide instrumentation and traffic monitoring (specific locations noted)
- 522 mitigation (specific location noted)
- A toll mitigation account to respond to traffic diversion effects would be set up to fund the noted mitigation strategies and to find other mitigation as necessary. A joint state/local process would be developed to decide which projects should be implemented to mitigate the actual effects of diverted traffic once tolling begins. Funds from the account would be focused on the six-year period following tolling authorization.
- Advanced traffic management technology on 520, I-90, I-405 and I-5.
- A coordinated transit implementation plan developed by WSDOT, King County and Sound Transit.
- Transit service expansion via the Urban Partnership Agreement in the 520 corridor and possible other improvements to transit service in response to anticipated or actual traffic diversion.
- Transit-related improvements such as new or expanded park-and-rides should be added, including in the I-90 corridor, if it is tolled.
- In a two-bridge scenario, expansion work on I-405 and I-405 alternate routes should proceed as quickly as possible.
- Local jurisdictions support new transit service in the corridor. The Urban Partnership Agreement would fund the purchase of 45 new buses, but operational funds are needed.
- Funding to operate transit needs to be identified and secured. Using toll revenues to pay for that service is a policy decision to be made by the Legislature.

Washington's *Good To Go!* electronic tolling includes several features that meet the needs of low income customers:

- Customers can establish *Good To Go!* accounts with cash. There is no need for a credit or debit card.
- Low-income users can establish and replenish a *Good To Go!* account using their electronic benefits transfer (EBT) card issued by the state Department of Social and Health Services.
- Full-service *Good To Go!* customer service centers are available for cash customers.
- Mobile *Good To Go!* customer service centers are available to set up at events, businesses, and high-traffic areas.

Research and outreach to low income service providers suggested that tolls, like all increased costs, will have a greater impact on low income families, and a higher portion of those families incomes will go towards tolls. Among specific concerns were these:

- Putting $30 in a pre-paid *Good to Go!* account may be difficult for low income families. They may not have credit or debit cards to automatically replenish online accounts.
- Most trips across the bridge are for people accessing social services, work or medical appointments.
- Buses don't always work for those with children in daycare who must be dropped off before continuing on to work.

The committee was urged to consider several steps that could ease the burden of tolls on low income families and service providers, some of which have since been implemented. Among them:

- Implement more bus service in the corridor to better meet demand. Forty-five new buses are planned for the corridor under the Urban Partnership Agreement.
- Investigate partnering with retail outlets to make purchase and replenishment of cash and *Good to Go!* accounts more accessible. WSDOT has contracted to sell passes at local Safeway stores and is exploring partnerships with other retailers.
- Translate tolling materials into several languages. WSDOT has translated many tolling materials into six additional languages.
- Educate service providers who can explain the system to those who do not read.
- Explore a transportation allowance for those who use the bridge that will provide additional toll allowances on EBT cards, consistent with existing eligibility requirements.
- Analyze the relationship between toll rates and transit fares.

Technology Assessment

Advanced Tolling Technology

When the new Tacoma Narrows Bridge opened in 2007, Washington launched its *Good To Go!* electronic tolling system. More than 70 percent of all Tacoma Narrows Bridge traffic uses *Good To Go!* allowing users to travel at highway speeds without stopping at tollbooths. During peak times, 85 percent of vehicles use a *Good To Go!* transponder. Solo drivers on SR 167 in Southeast King County can now use this same electronic tolling system to pay for a quicker trip on the HOT lanes.

The SR 520 corridor will use all-electronic tolling. This means all traffic on SR 520 can cross without stopping to pay.

With *Good to Go!* tolls are collected electronically with a transponder, about the size of a band aid. Drivers affix the transponder on the inside of their car windshield. When driving on a tolled facility, an overhead antenna links the transponder to account information, and deducts the correct toll from a prepaid account. Automatic replenishment allows drivers to easily manage accounts by authorizing payments from a credit card or bank account.

To use this technology, regular users should have a pre-paid account. However, some people will not have transponders or may be visiting from out of town. Their vehicles will have their license plate photographed and can prepay (online or by phone) or be invoiced for the toll, which will reflect a higher toll rate to reflect processing costs. Transponder technology and license plate recognizing cameras are used today on the new Tacoma Narrows Bridge and at other toll facilities around the world.

All electronic tolling for 520 is important for a number of reasons:

- High volume: The current daily crossings on SR 520 are approximately 115,000 vehicles per day and 150,000 on I-90. The Tacoma Narrows Bridge averages about 40,000 toll transactions per day.
- Traffic flow: If vehicles on SR 520 are required to stop and pay tolls, the resulting congestion would negate the benefit of improving the facility.
- Variable rolling: Electronic toll technology supports the use of variable tolling, which provides lower toll rates during non-peak hours and helps keep traffic moving.

Active Traffic Management

Active traffic management, known in Washington as Smarter Highways, is the use of high-tech traffic tools to make roadways safer and less congested. These tools provide more accurate real-time information about what is on the road ahead and help reduce collisions and improve traffic flow.

WSDOT has already applied many active traffic management tools and technologies on Puget Sound area highways, including:

- Real-time information for drivers, such as electronic driver information signs, traffic cameras, traffic centers and online traffic maps. In addition to 217 new ATM signs, the Puget Sound region already has more than 487 traffic cameras, 96 electronic driver information signs, and twelve traffic management hubs.
- Ramp meters, or stop-and-go traffic signals, that automatically space vehicles entering the flow of traffic on the highway. Today, 144 ramp meters help keep traffic moving on some of Washington's busiest routes.
- Incident response teams that clear roads and help drivers. WSDOT used more than 55 trucks and responded to more than 52,000 incidents in 2007.
- Using HOV lanes more efficiently, with projects including a four-year high-occupancy toll (HOT) lane pilot project on 167 between Auburn and Renton that converted a HOV lane to a HOT lane.

The Urban Partnership includes active traffic management investments in the SR 520 and I-90 corridors. Building upon the region's existing investment in active traffic management techniques, the Urban Partnership will add overhead signs over each lane (illustrated in Figure 7), which convey variable speed limits; lane closures and warning signs, to alert drivers to slow down or change lanes because of collisions and backups. As of April 2011, ATM signs have been installed on SR 520 and I-90 as a result of the Urban Partnership program.

Figure 7
Active Traffic Management Signs on SR 520

Public Engagement Efforts

The committee led a public outreach and input-gathering effort in conjunction with the tolling analysis and evaluation process.

Thousands of people participated by attending committee meetings or public open houses, visiting the website, taking part in a web survey or writing to the committee, including:

- 16,000 visitors to the build520.org website
- 7,800 participants in a web survey gauging opinions on tolling scenarios
- more than 8,000 written comments to the committee
- more than 700 people attended at least one open house
- over 20 jurisdictions and stakeholder groups provided input into the process
- phone survey of 1,200 randomly selected area residents

Overall Findings from Public Engagement

A broad summary of the results from the committee's public outreach program is shown in Table 11. The committee's report breaks out the outreach conducted and types of responses received from specific audiences and constituency groups.

Mayors and Councils

The committee was charged with conferring with leadership from adjacent jurisdictions and conducting extensive outreach with local and regional elected officials from around Lake Washington. Several jurisdictions provided letters, touching on the following general issues:

- Diversion and traffic congestion
- Toll exemptions and effects on bridge users
- Transit service and capacity
- Use of toll revenue
- Timing of tolling implementation

Many jurisdictions in similar areas shared concerns. Grouped by geography, major themes included:

- North – concerns about diversion to SR 522 and the further deterioration of traffic conditions.
- East – concerns about diversion to local arterials and streets; lack of park-and-rides; lack of adequate transit service.
- South – need to see I-405 improvements completed to keep traffic moving.
- West – diversion to local routes.
- Mercer Island – concerns about charging tolls to Mercer Island residents who must use I-90 to travel off the island.

Table 11

Summary of Public Response to Issues Posed to the 520 Tolling Implementation Committee

Input Sought by the Legislation

- **Funding a portion of the SR 520 replacement project with tolls on the existing bridge:** The majority (58 percent) of respondents to a statistically-valid phone survey conducted in November 2008 supported tolling the existing bridge in 2010 if it resulted in lower tolls and financing costs. Many public comments supported tolling on the existing bridge (in 2010), particularly if tolling would reduce out-of-pocket costs to drivers and improves traffic. In the phone survey, support was less if tolling causes speeds on I-90 to decrease. Among written comments, support for tolling in general was a common response, but so was opposition to any tolling, or concerns about costs to the public.
- **Funding the SR 520 Program and improvements on the I-90 Bridge with a toll paid by drivers on both bridges:** The majority (65 percent) of phone survey respondents supported tolling I-90, though less than half of I-90 users were supportive of the idea. Tolling both bridges was supported by many comments, but was largely opposed by I-90 users. There is also strong opposition to tolling I-90 from many Mercer Island residents, and a "No Toll on I-90" group organized a petition opposing the idea. Among I-90 users, slightly more than half were supportive of the idea of tolling I-90 when they learned that toll revenue would also be used to support improvements on I-90.
- **Providing incentives and choices for transit and carpooling:** Nine percent of statistically-valid phone survey respondents said they would take transit if there was a toll on SR 520. Many respondents felt providing improved transit service was important if tolling is implemented, and some suggested transit as a mitigation for low income bridge users. A postcard campaign organized by the Sierra Club identified transportation choices as a priority use for toll revenue.
- **Implementation of variable tolling as a way to reduce congestion:** Variable tolling is supported as a way to reduce congestion and improve traffic conditions, with more than two-thirds of phone survey respondents supporting it. Electronic tolling (no toll booths) increases support for tolling on the bridge.

Evaluation Criteria

- **How much revenue is generated and when:** Public comments show a general trend toward generating revenue sooner, in 2010, rather than later, in 2016, particularly if this results in lower toll rates for travelers.
- **The "reasonableness" of the toll:** Few directly commented on the "reasonableness" of toll rates. Some said that toll rates of $3 or more were too high, others recommended rates ranging from $0.50 to $2. Among those who opposed tolling, some said that the annual cost to their family would be too high given the proposed rates.
- **The diversion effects of a bridge toll:** Many respondents and jurisdictions were concerned with the diversion effects of a bridge toll. Communities north and south of Lake Washington were concerned about diversion around the lake, while those on the east and west sides were concerned about diversion to neighborhood streets as a result of segment tolling.
- **The performance of the bridge:** Most respondents appear to understand the connection between variable tolling and improved traffic flow; however, the need for bridge replacement and concerns about traffic on roadways approaching the bridge were mentioned more often than bridge performance.
- **The effects a toll may have on lower-income bridge users:** Many respondents were concerned with potential impacts to low income bridge users, with some suggestions that low income bridge users be exempt from tolls. Many respondents suggested that increased transit options should be provided for those unable to pay the toll or that a free alternate route should always be available.

Legislators

As part of the committee's efforts, legislators from districts in and near the SR 520 and I-90 bridges received regular updates from the committee, as did all the members of the House and Senate transportation committees. Members of House and Senate leadership were also invited to committee briefings. Various legislators attended open houses or other community meetings.

Washington State Transportation Commission

Before the release of results from the first four scenarios in July 2008 and the nine scenarios in November 2008, Legislators were invited to a briefing on the results. An e-mail notification of the findings was also distributed to the Legislators noted above and staff was available to provide briefings or answer questions. Committee staff also made a formal presentation to the House Transportation Committee in Olympia on September 11, 2008 and on August 12, 2008 the committee members presented the results of the initial scenario analysis to the Joint Transportation Committee.

Business and Civic Leaders

The committee was charged with outreach to the business community as one of the key stakeholders. SR 520 connects some of the region's most vibrant and important job centers, including Redmond, the University of Washington and downtown Seattle. It also provides vital access to the cities of Bellevue and Kirkland.

Committee members spoke before a number of business groups to inform them of their work and ask for their input. These included the board of the Bellevue Chamber of Commerce, the Transportation Committee of the Greater Seattle Chamber of Commerce, the Freight Mobility Roundtable, and the Mercer Island Chamber of Commerce.

Staff for the Committee spoke to both the Redmond and Mercer Island Rotary Clubs about tolling on SR 520 and I-90. Committee members Paula Hammond and Dick Ford conferred with University of Washington President Mark Emmert.

Website

The Committee used a website, build520.org, as one way to communicate with citizens. The website included the latest information about toll scenarios and analysis, as well as all Committee materials, an online comment form, e-mail and mail addresses. The website received more than 16,000 unique visitors and more than 85,000 page views between June and December 2008.

Open Houses

Nine open houses were held throughout the I-5, SR 520, I-90, SR 522 and I-405 corridors to present results of tolling scenarios and ask for public views, questions, and opinions. Six open houses were held in July and August and three in November. More than 700 people attended the open houses. The Committee received more than 400 comments from individuals attending the open houses.

Web Survey (self-selected participants)

After the release of the second round of tolling scenarios, the committee also hosted an online survey November 10-30, 2008. This tool should not be considered statistically-valid, as respondents are self-selected. The purpose was to provide a formal way for people to provide input, regardless of if they could attend an open house. The web survey also served as the primary comment tool for the second round of open houses. Through web banner ads in select media outlets and e-mail distribution lists, more than 7,800 individuals filled out some or all of the web survey. The web survey was also sent to more than 700 workplaces in King County with more than 100 employees.

Phone Survey (statistically valid sample)

In November 2008, the committee also conducted a random sample statistically-valid telephone survey of 1,200 people that included four groups of participants: people who use I-90, people who use 520, people who use both bridges and people who use neither bridge. The intent was to evaluate the validity of input the committee was receiving, and to compare the web survey and statistically-valid phone survey.

The results of the web and phone surveys were similar in most cases. They show support for:

- Using tolls to help fund the new 520 bridge
- Electronic tolling
- Variable tolling

Both surveys show that people are supportive of tolling in 2010 if it reduces out-of-pocket costs and if it improves traffic. Highlights for both the web and phone survey are included in Figure 8.

Outcomes

Several actions resulted from this work. The Legislature authorized toll funds to be used for SR 520 construction, allowing work to begin on the project. Construction on the eastside corridor begins in Spring 2011 concurrent with toll collection on the existing bridge. This is the first large-scale implementation in this part of the country of variably priced tolls with all electronic toll collection. This A&AP Value Pricing Grant played an important part in advancing this project.

Figure 8

Web and Phone Survey Highlights

Respondents support	Web survey	Phone Survey
Support tolling to help fund new 520 bridge.	Nearly 2:1 margin **(59% to 30%)**	More than 2:1 margin **(64% to 30%)** ▪ Highest support from non-bridge users at 67%. ▪ Lowest support from I-90 users at 60%.
Support for tolling 520 increases when respondents learn about electronic tolling and "no toll booths."	**69%**	**73%** ▪ Highest support from 520 users at 78%. ▪ Lowest support from non-bridge users at 69%.
Respondents support variable tolling.	More than 2:1 margin **(65% to 31%)**	More than 2:1 margin **(70% to 27%)** ▪ Highest support from 520 users at 73%. ▪ Lowest support from I-90 users at 66%
Respondents support tolling in 2010 if it results in lower tolls and financing costs.	Nearly 3:1 margin **(60% to 23%)**	Less than 2:1 margin **(58% to 36%)** ▪ Highest support from non-bridge users at 59%. ▪ Lowest support from users of both bridges at 55%.
Support goes down for tolling in 2010 if it makes 520 faster, but slows down I-90.	**55%**	**51%** ▪ Highest support from 520 users at 56%. ▪ Lowest support from I-90 users at 47%
Support for tolling both bridges goes up (but not among I-90 users) if it makes speeds go up on both bridges.	**61%**	**61%** ▪ Highest support from 520 users at 75%. ▪ Lowest support from I-90 users at 47%.
Support for tolling both bridges goes up (but not among I-90 users) if toll rates are lower than just tolling 520.	**61%**	**61%** ▪ Highest support from 520 users at 73%. ▪ Lowest support from I-90 users at 47%.
Support for tolling both bridges goes up among I-90 users when they know improvements will be made to I-90.	**64%**	**65%** ▪ Highest support from 520 users at 75%. ▪ Lowest support from I-90 users at 53%.

PSRC Pricing Task Force and Transportation 2040

In 2007, PSRC began an update to the Metropolitan Transportation Plan, Transportation 2040. The agency recognized the long-term potential of pricing strategies to fund projects and manage traffic but it sought to better understand the links between pricing, transportation, land use and economic development and to incorporate pricing into Transportation 2040.

The PSRC's Transportation Policy Board established the Pricing Task Force in September 2007 to evaluate comprehensive roadway pricing strategies for inclusion in Transportation 2040, the update to the regional transportation plan. The Pricing Task Force was composed of local elected officials, business and freight interests, and transportation experts.

The project provided funding to the PSRC's Pricing Task Force, which provided input into the regional transportation plan update, Transportation 2040. As a result, the Puget Sound Region now has a long range vision on how pricing will contribute to regional transportation funding, congestion management, environmental and economic development objectives.

The key objectives of the task force were to:

- work with other agencies, the public and outside interests
- pose policy questions regarding roadway pricing
- provide information on roadway pricing's role in improving mobility, meeting environmental and economic objectives and providing needed funding for transportation investment in the region
- development of a set of objectives, criteria, measures and roadway pricing alternatives to be integrated and evaluated with other transportation strategies
- make recommendations on a comprehensive set of roadway pricing strategies that should be included in Transportation 2040

The Pricing Task Force met in 2008 and 2009 to develop pricing options for incorporation into Transportation 2040, the region's transportation plan. Presentations to the task force are shown in Table 12, which includes links to the PowerPoint documents shown to the task force.

In conjunction with the Transportation 2040 Working Group, the task force evaluated five draft alternative tolling concepts, shown in Table 13. Each of these tolling concepts was evaluated against a set of key criteria, including:

- mobility
- finance
- growth management
- economic prosperity
- environmental stewardship
- quality of life
- equity

Table 12

Pricing Task Force Presentations

2008 Presentation Topics

- Introduction to Pricing Alternatives
- Alternatives Development
- Criteria
- Scoping
- Alternatives Development
- Tolling
- Climate Change
- Criteria
- Process for Developing Alternatives & Tolling Concepts
- Guidance & Refinement: Tolling Components of Alternatives
- Draft Recommendations on Tolling Concepts
- Draft Alternatives Tolling Concepts
- Recommendation on Transportation 2040 Alternatives

2009 Presentation Topics

- Policy Analysis & Evaluation Criteria
- Transportation 2040 Finance & Environment
- Finance Presentation
- Developing a Sustainable Transportation System

Following extensive analysis and discussion, the task force and Transportation 2040 Working Group agreed that the draft alternative tolling concepts represented a reasonable range of transportation investment options, and recommended that they be forwarded on for more detailed analysis by the Transportation Policy Board as part of the Transportation 2040 Environmental Impact Statement (EIS) process.

The Task Force and Transportation 2040 Working Group advised PSRC's Transportation Policy Board in its efforts to develop a preferred alternative to be carried forward in the Transportation 2040 Plan.

The constrained version of the preferred alternative that was ultimately identified and selected included successive expansion of roadway tolling, beginning with HOT lane operations on the majority of the region's freeways in the mid-term of the plan, to full tolling of the entire regional freeway system by 2040. It also included increased parking charges in urban centers.

Table 13

Pricing Elements Incorporated Into Transportation 2040 Alternatives

- Alternative 1: Emphasized improving the existing transportation system by focusing investments on demand and system management activities and additional transit services. This alternative assumed only small amounts of additional traditional transportation funding and limited reliance upon tolling revenues, primarily to fund the SR 520 bridge replacement.
- Alternative 2: Emphasized strategic expansion in both roadway and transit capital programs throughout the region, with modest investments in system and demand management, including a two lane (HOT) lane network. This alternative assumed sizable new traditional transportation funding and modest reliance upon tolling, primarily to fund the SR 520 bridge replacement.
- Alternative 3: Emphasized a balance of strategic expansion of the Puget Sound Region's highway system and management of this investment through user fees/tolling and modest investments in other system management, bus services and arterial improvements. This alternative assumed modest opportunity for additional traditional transportation funding for non-highway uses and reliance upon toll financing highway uses.
- Alternative 4: Emphasized an integrated mix of investments to improve the efficiency of the highway system and strategic investments that support transit and arterial improvements in existing corridors. This alternative assumed a limited opportunity for additional traditional transportation funding and relied upon toll financing of the highway system to fund efficiency and strategic investments.
- Alternative 5: Emphasized investments that improve the efficiency of the roadway system (freeways and arterials), and that provide opportunities to reduce vehicle use and convert transportation fleets to reduce carbon dioxide emissions. This alternative assumed a replacement of fuel-based financing approaches with charges that relate to vehicle use such as vehicle miles traveled fees and/or congestion tolls on the arterial and freeway network. Revenues would be broadly used to support mobility and limit vehicle emissions.

Upon completion of the EIS process, the PSRC General Assembly adopted the Transportation 2040 Plan in spring 2010.

Outcome

As a result of the regional task force work, the adopted Transportation 2040 Plan calls for variable tolling on the region's freeway network by 2040 with incremental steps to toll specific facilities, including the evolution of the region's HOV system into a network of express toll lanes.

Evaluating Existing and Potential Pricing Projects

There has been much progress in the development of tolling and pricing policy and project implementation in the Puget Sound Region. The new Tacoma Narrows Bridge, with electronic toll collection, and the SR 167 HOT lanes, respectively. WSDOT used a portion of the A&AP Grant to assess the satisfaction of users of these facilities as it relates to their experiences on the road, their level of support for tolling, for electronic toll collection and related issues.

WSDOT continues to seek information regarding the development of new toll facilities. The agency conducted opinion research regarding converting a portion of I-5 through Seattle into express toll lanes.

Follow up research Tacoma Narrows Bridge and SR 167 users

WSDOT conducted public opinion research of users of Washington's current toll facilities in order to understand their opinions of tolling and satisfaction with WSDOT's customer services, and to identify how experience with tolling has changed awareness and acceptance of pricing. A summary of results is shown in Table 14, and the full report is here [web link].

At the time these surveys were conducted, the new Tacoma Narrows Bridge had been open for approximately two years, and the SR 167 HOT Lane Pilot Project had been in operation for approximately one year. SR 16 is a traditional toll bridge project, with tolls providing bond-backed financing for a new bridge on which all users are tolled. SR 167 is the state's first HOT lane project, which converted an underutilized HOV lane to HOT, and changed from allowing access at any point to only allow access and egress at designated locations.

It's worth knowing that travel changed significantly as a result of both projects. The SR 16 Tacoma Narrows Bridge Project added a second bridge, with an HOV lane and auxiliary lane added in each direction. Prior to opening the new bridge, congestion approaching the bridge was severe, while congestion has been rare since the new bridge has been in place. The SR 167 HOT lane project outcomes have been less dramatic, but travel times have improved for both the HOT lane and general purpose lanes as a result of HOT lane operation.

I-5 Express Toll Lane Survey and Focus Groups

The A&AP Project also funded focus groups and a survey, conducted in 2010. The purpose of the focus groups and survey were to better understand people's thoughts, feelings, and overall support for I-5 express toll lanes, as well as to gain a better understanding of people's travel experience on I-5, the possible future uses of these lanes, and support for the possible adoption of 3+ carpools. It's important to note that little information about express toll lanes was provided, so these surveys identify baseline opinions prior to public outreach.

A summary of the survey is in shown in Table 15, and the full report is online. A summary of the focus group results is shown in Table 16, and the full report is online.

Table 14

Summary of Public Opinion Research: Existing Toll Customers on SR 16 and SR 167

Users are more supportive of tolling for construction than for traffic management

- Tacoma Narrows Bridge users, regardless of whether or not they had a *Good To Go!* account, agreed more with tolling for construction than for traffic management purposes.
- SR 167 users with an account agreed equally with the use of tolling for construction or for traffic management purposes.
- SR 167 general purpose lane drivers, without an account tend to agree more with tolling for construction than for traffic management purposes.
- SR 167 carpoolers without an account equally agreed with tolling for construction and for traffic management.

Opinions about tolling are more positive for those with *Good To Go!* accounts

- Of those who changed their opinion about tolling since the new Tacoma Narrows Bridge opened:
  - The majority (70.3%) of bridge users with an account were more favorable of tolling.
  - More than two-thirds (68.1%) of bridge users without accounts reported becoming more negative about tolling.

Of those who changed their opinion about tolling since the SR 167 HOT lanes opened,

- The majority (70.4%) of SR 167 users with an account reported becoming more positive toward tolling.
- Over half (55.2%) of SR 167 carpoolers without an account reported becoming more positive toward tolling.
- Nearly half (47.4%) of SR 167 general purpose lane users without an account reported their opinion becoming more positive toward tolling.

(Continued on next page)

Table 14 (continued)
Summary of Public Opinion Research: Existing Toll Customers on SR 16 and SR 167

About a third of Tacoma Narrows Bridge users report increasing their bridge use after the completion of the new bridge

- Close to a third (31%) of bridge users with accounts reported that their use of the bridge increased after the completion of the new bridge.
- A comparable percent (34.7%) without accounts reported that their use of the bridge had increased after the completion of the new bridge.
- Many, regardless whether they have accounts, report using the bridge more because there was less congestion.
- A majority (59%) of TNB users with accounts reported that their bridge use had decreased because the toll amount was too high. In comparison, two-fifths (39.5%) of people without accounts attributed less use to the toll rate.

Introduction of HOT lanes on SR 167 has resulted in a reported decrease in congestion, a greater sense of safety and greater likelihood to carpool

- Nearly half (48%) of those who said HOT lanes had affected their experience of congestion, reported that congestion had decreased. This was true regardless of whether or not they have an account.
- Half of those who said HOT lanes had affected their experience of safety, reported feeling safer. This was true regardless of whether or not they have an account.
- More than half of potential carpoolers reported they were more likely to carpool as a result of the HOT lanes, regardless of whether or not they have an account.
- Of those who said HOT lanes had affected their experience, over half (53%) of account holders reported better travel times, while 56% without accounts reported that travel times were about the same.

Many agree that HOT lanes on SR 167 are beneficial

- Over half of SR 167 users, whether or not they had a *Good To Go!* account agreed that:
  - HOT lanes allowed them to make a faster trip when the regular lanes are congested.
  - Allowing single drivers to use carpool lanes by paying a toll is a good idea.
  - Signage for the HOT lanes is easy to understand.
  - HOT lanes should be opened on other freeways in our region.
  - HOT lane rules are followed by most drivers.
  - HOT lanes create incentives to carpool or take the bus.
  - HOT lanes relieve traffic congestion.
  - HOT lanes are fair to those with low incomes.
  - HOT lanes do not slow down transit and carpools.
  - The SR 167 HOT lanes should have a toll and should not be open to all drivers for free.

People without accounts haven't thought about getting a *Good To Go!* Account

- Three-fifths (60.3%) of Tacoma Narrows Bridge users who did not have an account said that they had not thought getting about one.
- Of Tacoma Narrows Bridge users without an account, 68 percent said they do not use the bridge that often to make the investment worthwhile.
- As for SR 167 users without an account, over three-fourths (78.7%) of carpoolers and a vast majority (92.7%) general purpose lane users reported not thinking about getting an account.
  - For SR 167 carpoolers, they either carpool (42%), or do not travel during congested times (35%).
  - For SR 167 general purpose lane driver, they do not use SR 167 during congested times (32.6%), and do not travel enough on SR 167 (18.9%).

Table 15

Summary of I-5 Express Toll Lanes Focus Group Findings

- The focus group findings were not that different from the previous groups conducted regarding pricing in general. People were not sure express toll lanes would work, and they did not want to pay more to use the existing highway.
- "Congestion" is the word often used by participants to describe what it is like to travel on I-5.
- Participants were hesitant to accept the idea of express toll lanes. They were uncertain that express toll lanes would improve traffic congestion and they did not want to pay more money to use highways.
- Watching a WSDOT video (developed for I-405 project to explain the express toll lanes concept) did not really change participants' feelings towards express toll lanes, but some might try the lanes in order to get someplace in a hurry when there is heavy congestion.
- Participants did not support the idea of changing the carpool requirement to 3 or more passengers.
- Overall, participants were concerned that express toll lanes would reduce carpooling because the incentive to carpool would no longer apply if you can pay to use the lane. If carpool requirement changes to 3+, it will be too difficult so many people will stop carpooling.
- There were no overly compelling messages, descriptions, or reasons to use express toll lanes given the public hesitancy to support them. However, messages focusing on the benefits of reliability, reducing congesting, and going faster were more compelling than others.
- Lastly, there are situations in which people would likely try the lanes, for example: picking up children at daycare or school, getting to the airport, or getting out of town more easily for the weekend.

Table 16

Summary of I-5 Express Toll Lanes Survey Findings

- A quarter (24.5%) of respondents are is supportive of WSDOT's plan to operate up to two express toll lanes in each direction on I-5, though 43% are not supportive.
- Over 50% of respondents found the following benefit statements appealing
  - Express toll lanes would collect tolls electronically as vehicles travel at regular highway speeds. There would be no toll booths.
  - Tolling funds could go directly into a dedicated account to maintain and improve the I-5 travel corridor.
  - Tolling is expected to reduce the amount of time vehicles are idling in stop and go traffic, which will be good for the environment.
- Close to half found the following statements appealing:
  - Tolling will help guarantee travel speeds of at least 45 mph, providing a more reliable trip to those who use the express toll lanes.
  - Toll rates will change by the amount of traffic congestion – higher rates during times of more congestion, lower rates during times of less congestion. This will help avoid over-crowding the lanes and will reduce congestion.
  - Moving vehicles out of the general purpose lanes and into express toll lanes will increase speeds in all lanes. (so all users will benefit)
- Many support converting the existing reversible express lanes to express toll lanes
  - Over half (51.2%) were supportive of converting the I-5 reversible express lanes into express toll lanes if it would move more people and vehicles through the corridor.
  - Close to a half (48.9%) were supportive of converting the I-5 reversible express lanes into express toll lanes if doing so would allow you to use any of the downtown exits.
- A third would have used express toll lanes for faster trip
  - Close to a third (31.8%) indicated that they would have been likely to have used an express toll lane for a faster trip if it was available during their previous travel on I-5 when it was congested.
- Half would use express toll lanes at least one time per month
  - About half (50.4%) said that they saw themselves using express toll lanes at least one time per month.
  - 46.9% said that they wouldn't use the lanes at least once per month.
- The top five circumstances under which respondents could see themselves using the express toll lanes:
  - Congested traffic during peak hours (23.2%)
  - In a hurry (15.4%)
  - During emergency (14.9%)
  - Keeping an appointment (14%)
  - While running late (13%)
- Respondents want express toll lanes to deliver less traffic and greater travel speeds:
  - Less traffic (39.4%)
  - Greater speed (29.1%)
  - Keep traffic flowing (24.8%)
- Over half are willing to pay up to $2.00 to use express toll lanes if it would increase their speed to 45 miles per hour
- Many do not support changing the definition of high occupancy vehicle to '3 or more people'
  - Nearly two-thirds (64.6%) do not support changing the HOV definition from 2 or more people to 3 or more people.
  - One-third (33.3%) support changing the HOV definition to 3 or more people.

Based upon the findings above, the consultant developed proposed messaging for I-5 Express Lane concept education and outreach purposes, shown in Table 17.

Table 17

Proposed Messaging for Express Toll Lanes

1) The need
   - I-5 is congested. If things don't change, it will only get worse.
2) The situation
   - The majority of I-5 users are willing to pay a toll to maintain their travel speed.
   - States across the country are turning to tolling to reduce congestion and generate additional revenue.
3) Benefits
   - Express toll lanes have been proven to reduce traffic and increase travel speeds.
   - Express toll lanes will reduce congestion and increase speeds for everyone.
   - Express toll lanes will create more consistent traffic flow and provide travel speeds of at least 45 mph in the express toll lanes, providing a more reliable trip to those who chose to use the express toll lanes.
   - Express toll lanes will get you around congestion and deliver you where you need to be when you need to be there.
   - Tolling revenues will be used to maintain and improve I-5.
   - Tolling is expected to reduce the amount of time you spend idling in stop and go traffic, which will also be good for the environment.
   - With express toll lanes you always have a choice to stay in the un-tolled general purpose lanes.
   - Tolling is a fair option because the users pay.
   - You can avoid traffic for about the price of a drip coffee.
4) The product
   - Current HOV lanes will become express toll lanes that are free for carpools and transit. Vehicles that are not carpools can pay a toll for a faster, more reliable trip when they need it most.
   - The price of an express toll lane adjusts according to the amount of customer demand.
   - Express toll lanes prices adjust to manage traffic based on demand (just like supply and demand balance our economy).
   - Express toll lanes collect tolls electronically as vehicles travel at regular highway speeds. There are no toll booths.

Key Conclusions from Public Opinion Research

WSDOT will consider the public opinion research as it moves forward with tolling. The research about the new Tacoma Narrows Bridge and SR 167 users has been recently completed, as has the work regarding I-5 Express Toll Lanes.

Public opinion research about I-5 express toll lanes illustrated two overall facts:

- There is little background support for converting HOV lanes into express toll lanes, and achieving acceptance will require a substantial outreach effort.
- The research underscores the overall project findings that key questions and concerns need to be addressed in advance in order to achieve awareness and acceptance of any tolling proposal, even if the public have become familiar with tolling through other tolling projects. Specific project benefits need to be communicated and understood.

Based upon the full body of public opinion research conducted as part of the A&AP Grant, some broad conclusions can be reached.

- Potential users must understand the need for the project: each potential new tolling project must make its own case to the people, rather than rely on successes of previously implemented toll projects.
- Project messaging must focus on the specific benefits users will receive: people are more willing to pay for something if they understand how it will improve their life.
- Though new projects must make their own case, it is true that when people have experienced the benefits of a new project with tolls, their general level of support for pricing increases.
- People in Washington still prefer to have options to paying a toll – other routes, transit, and traveling at different times of day.
- In Washington, people still tend to support tolling as a means to raise revenues to pay for a project. However, when people experience the benefits of a congestion management project – faster travel times, less congestion - they understand it and that builds support. This suggests that primary messaging be linked to construction, with secondary messaging supporting travel benefits. WSDOT will be more able to explore this dynamic once the variable-priced, all electronic toll collections are implemented on the existing SR 520 Bridge in Spring 2011.

Outcome

WSDOT has a better understanding of the way customers' experience with tolling has affected their awareness and acceptance of pricing, and of the challenge ahead to gain acceptance for express toll lanes prior to developing clear messages and engaging the public through education and outreach.

Conclusions

The Awareness and Acceptance of Pricing project fostered a common understanding and communication of toll concepts and strategies between Puget Sound agencies, and transportation stakeholders and policymakers, based on technical analysis and public opinion research. Findings of the project have informed WSDOT projects and corridor plans, as well as the PSRC's recently-adopted Transportation 2040 metropolitan transportation plan.

The concept of variable tolls has come a long way in Washington state since the Awareness and Acceptance of Pricing funding was awarded in 2007. At that time, WSDOT was preparing to open the new Tacoma Narrows Bridge with electronic toll collection and the SR 167 HOT lane project was being designed. But much was still unknown regarding public or leadership support for pricing projects.

The regional coordination work funded by the project helped extend the baseline of knowledge about public perception and related tolling issues. State leaders were better able to understand the benefits of tolling and the public was better aware of the ways tolling could help advance multiple transportation objectives. As a result, policymakers and the public were more accepting of the plan to embark on a new approach that would toll an existing facility – the SR 520 Bridge.

Variably-priced, all-electronic tolling on the SR 520 bridge begins this spring, the same time that construction begins on replacement bridge. The work funded through the Value Pricing Grant played a significant role in successfully moving this project forward.

The PSRC also used information obtained through this project to further investigate pricing-related issues and alternatives for inclusion in Transportation 2040. As a result, the region's 30-year transportation plan includes pricing and a general outline of how the region can move forward with implementation.

Finally, the public opinion research conducted as part of this effort provides common themes that can help build support for inclusion of pricing in a project. The research shows that establishing the need, targeted messaging, communicating benefits and offering choices remain critical for public support.